### TCTAP A-174

**Optimal Treatment for Hemodialysis Patients with Critical Limb Ischemia; Comparison Surgical and Endovascular Revascularization for Infrainguinal Artery Disease**

Tatsuya Shiraki,[1] Osamu Iida[1]
[1]Kansai Rosai Hospital, Japan

**BACKGROUND** The number of patients on hemodialysis complicated with critical limb ischemia (CLI) is increasing worldwide. Latest guideline points to life expectancy of <2 years as main determinant in revascularization modality selection (bypass surgery [BSX] or endovascular therapy [EVT]) in patients with critical limb ischemia (CLI). We compared clinical outcomes after EVT and after BSX, and examined predictors of 2-year mortality after revascularization in this setting.

**METHODS** This is retrospective multicenter study. From 2007 to 2009, 246 consecutive CLI patients on hemodialysis (age, 69±10 years; 70% male; 45%non-ambulatory status; 69% diabetics; 21% with rest pain; and 79% with tissue loss) who underwent revascularization for infrainguinal lesions (178 EVT and 68BSX) were enrolled. Two-year amputation-free survival (AFS), overall survival (OS), major amputation (MA), and major adverse limb event (MALE: repeat EVT, surgical reconstruction, major amputation) were evaluated by Kaplan-Meier analysis. Predictors for 2-year mortality after revascularization were determined using a Cox hazards model.

**RESULTS** Two-year AFS, OS, MA, and MALE rates were not significantly different between EVT and BSX (60% vs. 52%, P=0.20; 80% vs. 69%, P=0.18; 15% vs. 18%, P=0.36; and 49% vs.42%, P=0.40, respectively), which held after adjustment with covariates. However, death within 30 days was significantly higher after BSX than EVT (P=0.048). Predictors of 2-year mortality after EVT or BSX were age >75(hazard ratio [95% confidence interval], 1.79 [1.09-2.93]), and albumin<3g/dL (2.09 [1.21-3.59]).

**CONCLUSION** After revascularization in CLI patients on hemodialysis, death rate within 30 days was higher in BSX than EVT; AFS, OS, MA, and MALE rates were not significantly different between EVT and BSX; older age and low albumin level were associated with 2-year mortality.

### TCTAP A-175

**Catheter-Based Renal Denervation Could Lower Blood Pressure As Early As One Month**

Chuan Lei Chao,[1] Po-Lin Lin,[2] Tsung Yeh Yang,[1] Chun-Wei Lee,[1] Ying-Hsiang Lee[1]
[1]MacKay Memorial Hospital, Taiwan; [2]MacKay Memorial Hospital, Hsinchu, Taiwan

**BACKGROUND** Catheter-based renal sympathetic denervation (RDN) has been shown to reduce blood pressure (BP) in resistant hypertension. Cohort of Symplicity HTN-3 study revealed discrepancy of response between races. Our study was aimed to determine its efficacy in Taiwanese population.

**METHODS** Patients who received RDN and had office BPat baseline, 3, 6 and 12 months after treatment were enrolled. Ambulatory 24-hourBP monitoring (ABPM) and office BP at 1 month was also reviewed if available. Post procedure BP was compared to baseline. Number and location of ablation under fluoroscope were documented to determine its impact on BP lowering.

**RESULTS** 72 patients (mean age 57±11 years, 67% of male) had baseline office systolic BP 168±2 mmHg, diastolic BP 93±19 mmHg and mean of 4.6±0.1 antihypertension medications. 1 patient had major complication of vascular access hemorrhage without further sequelae. Post procedure office BPs were reduced by 21/5, 26/9, 23/9 mmHg at 3, 6, and 12 months (P<0.05), respectively. Among 36 patients with office BP at 1 month, 29 (81%) had >10mmHg of BP change and 22 (61%) had >20 mmHg. The response rate was seen persistently at 6 month. Fewer number of ablation was with less reduction in BP.

**CONCLUSION** For resistant hypertension, catheter-based sympathetic RDN could achieve substantial reduction in BP. The efficacy could be seen as early as one month.

## STRUCTURAL HEART DISEASE, OTHER (TCTAP A-176)

### TCTAP A-176

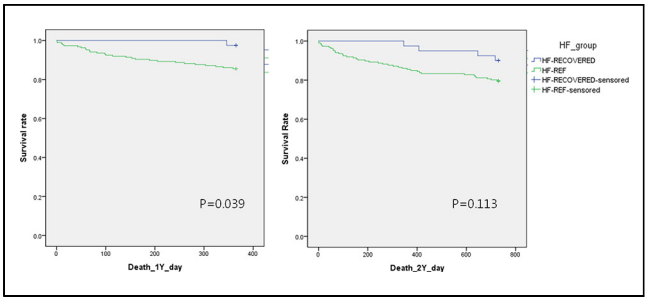
**Who Are the Patients That Improved Cardiac Function in Acute Heart Failure with Reduced LV EF?**

Song-Yi Kim,[1] Joon Hyouk Choi,[1] Ki-Seok Kim,[1] Seung-Jae Joo[1]
[1]Jeju National University Hospital, Korea (Republic of)

**BACKGROUND** Recovery of LV EF is the goal of treatment in HF with reduced EF. We thought that patients with HF who recovered LV function (HF-recovered) have different characteristics. We sought to characterize the HF-Recovered population and their prognosis.

**METHODS** We enrolled 227 patients with AHF with reduced EF who were residents of Jeju Island from 2005 to 2013. They were divided into two groups; HF-recovered (F/U EF ≥50% but initial EF was <50%,N=40, 17.6%). and HF with reduced EF (HFrEF, Initial and F/U EF were both<50%, N=187, 82.4%). Clinical characteristics and laboratory findings were reviewed from medical records. They were followed at least 2yrs. Clinical end-points were death or readmission due to congestive HF (CHF).

**RESULTS** HF-recovered group were younger (63.6±15.57 vs. 73.4 ± 13.57,p<0.001), and they had lower peak CKMB(5.6±4.64 vs.19.79±66.58, p=0.038), troponin-T (0.05±0.13 vs. 0.78±0.06, p=0.008) and proBNP level (5091.6±4876.5 vs. 8486.1 ± 8884.9, p=0.002). In HF-Recovered group, most common etiology of HF was dilated cardiomyopathy (N=13, 32.5%). On the other hand, that was is chemic heart disease in HFrEF group (N=89, 47.6%) HF-recovered patients also had a lower prevalence of coronary artery disease requiring revascularization and consequently fewer with an ischemic origin than HF-REF. Prevalence of hypertension, DM, CKD were similar in both groups. 1-year survival rate of HF-recovered group was significant higher than HFrEF group (97.5% vs. 85.5%, p=0.039), but 2-year survival rate was not different from that of HFrEF (90% vs. 79.6%, p=0.113). 2-year CHF-free survival rate was not different in both groups (70% vs. 67%, p=0.634).




**CONCLUSION** In the patients of AHF with reduced EF, small portion of patients had recovery of LV function. HF-recovered patients are younger and associated with a better cardiac biomarker profile. Their etiology of HF was non-ischemic.

Their short-termprognosis were better than those of HFrEF patients, but mid-term prognosis were similar.

## TRANSRADIAL INTERVENTION (TCTAP A-177 TO TCTAP A-178)

### TCTAP A-177

**Multi-Slice Computed Tomography Coronary Angiography for Detection of Coronary Anomalies**

Xuguang Qin[1]
[1]Hospital of Tsinghua University, China

**BACKGROUND** Congenital coronary artery anomaly occurs infrequently in general population, and they are present at birth, but relatively few are symptomatic during childhood. Most coronary anomalies are discovered as incidental findings during coronary angiography. Their clinical relevance varies widely. They may be clinically silent and totally benign, or may cause many adverse clinical events and even sudden cardiac death resulting insignificant morbidity and mortality, even among young adults.[1, 2]Cardiac catheterization has traditionally been indicated to demonstrate the coronary vasculature in detail and has remained the reference standard imaging modality. Owing to the potentially complex three dimensional anatomy of the coronary anomaly, conventional angiography, not infrequently, incompletely delineates the anatomical course of the coronary anomaly (3). This study sought to determine the ability of MSCT to detect the origin and course of anomalous coronary artery.

**METHODS** From January 2007 to September 2010, we enrolled 16 consecutive patients primarily with suspected coronary artery disease